



Advanced Graduate Certificate in Educational Computing

Informational session via Skype with a representative from
Stony Brook University
Monday, October 3, 2011; 4:00-6:00 p.m.
School Services Building, West Conference Room
Please register on MyLearningPlan to attend.

Advanced Graduate Certificate in Educational Computing

Information about the Program:

Stony Brook University in collaboration with The Hudson River Teacher Center and PNW BOCES is pleased to announce that the Advanced Graduate Certificate in Educational Computing program is now available in the region. Stony Brook University has developed a program to meet the flexible requirements of all educational professionals. Whether a beginner or advanced user of technology, this program includes relevant activities and experiences. To successfully complete the program, cohort members will participate in 6 three credit courses to total the 18 credit requirement for the Advanced Graduate Certificate in Educational Computing. The program courses will demonstrate for teachers how to fully integrate technology into the curriculum. There will be a fall, winter and spring session with an option for a summer session.

Some highlights include:

- A skilled team of lecturers who coordinate with each other to promote consistent, flowing curriculum within each course and from one course into the next throughout the eighteen credit program.
- Learning how to use computer applications within your class, developing technology based projects, creating websites, using web 2.0 applications, podcasting, exploring how to integrate Skype and distance learning, understanding video and photo editing, using Google tools and multimedia software for project design.
- Discussing the social impact of technology in education and issues such as cyber safety, cyber-bullying and social networking.
- Exploring emerging technologies in education and learning how to use and integrate a number of peripheral devices like interactive white boards, student response systems, digital cameras, video cameras, and tablets (ipads and android tablets).
- Experience these classes with your peers and colleagues within your own district or surrounding area.

Each 3 credit graduate level course will cost \$960* (subject to increase by NYS legislature). Students participating in this cohort program will receive credits through Stony Brook University, and also have access to some university services and privileges.

*Minor surcharge may apply.

Course Descriptions

EST 565 - Foundations of Technology in Education (3 Credits)

Throughout this course students will explore the basic pedagogical issues and social impact of using technology in education. This course examines the basic principles of integrating technology and computer applications into the curriculum. Students will learn how to use and integrate word processing, spreadsheet, and presentation applications for educator planning and student project work. Students will also learn how to use a number of online based Web 2.0 applications within school curriculum. The culminating activity for this course is the design and a presentation of a micro-lesson using one of these applications as they would in the classroom.



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EST 567 - The Internet, Social Networking and Collaborative Environments (3 Credits)

In this course students will learn the basic principles of using the Internet for instruction, the science and engineering concepts behind modern communication systems and their impact on education as well as the evolution of the Internet in education. Students will design and create a website and explore the use and social impact of collaborative learning environments and social networking. Students will learn how to evaluate and effectively integrate a variety of educational resources, such as web 2.0 tools and modern communication devices for active learning. Students will also develop a clear understanding of the issues surrounding cybersafety, cyberbullying, and the ethical issues raised by the use of technology in education. The culminating activity for this course is the development and publishing of a collaborative website that showcases the material and skills mastered throughout this course.

EST 571 - Educational Technology Research Methodologies (3 Credits)

This course evaluates the impact and value of educational technology uses through detailed research based on a number of current topics. Course goals include understanding research methodology and literature and exploring assessment design and implementation. The course includes class discussions and project work based on student learning with technology, access and the digital divide, the National Education Technology Plan, Internet literacy, emerging technologies, virtual schools, and data driven research.

EST 570 Educational Technology Lesson Development (3 Credits)

In this course students will learn principles of instructional design and how to fully integrate technology into daily curriculum. Throughout the course students will plan, develop and evaluate a lesson plan that demonstrates an expertise in the integration of educational technology. Students will apply the skills, techniques, resources and research necessary to effectively create an educational technology inspired lesson plan. The lesson plan may include the use of emerging technologies, distance learning, multimedia projects, collaborative environments, computer applications and Internet resources. The culminating project for this course is the completion of a lesson plan in a specific content area that incorporates multiple modalities of technology into pedagogical practices.

EST 574 Distance Learning and Virtual Environments (3 Credits)

Web-based distance learning applications are quickly growing within higher education institutions, K-12 schools, and corporate environments. The focus of this course is on the underlying theories, design, and implementation of effective modes of e-learning. Students will explore virtual schools, virtual learning, virtual environments and other forms of distance education. The social differences between face-to-face and virtual learning will also be examined and discussed throughout the course. Students will explore virtual learning resources and design their own virtual learning lesson. The culminating project for this course will be the demonstration and write up of the experience.

EST 585 Assessment of Technology in Learning Environments (3 Credits)

This course is designed to provide educators with an overview of the uses of technology to improve instruction. Students will understand the design and function of learning environments, individual applications related to the student's area of professional practice, and assessment of educational uses of technology today and tomorrow. Students will choose a current technology used in a specific learning environment and analyze and evaluate its effectiveness within instruction including practical classroom use and staff development for the particular technology. Students will then research and make recommendations on how the particular technology could be integrated most effectively to increase teacher understanding and enhance student learning. Students then present their findings about the current use of the chosen technology, possible improvements on its use as well as future technology recommendations.



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